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Session: Poster Session I
Date: Thursday, March 3, 2016
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Screening for chlamydia trachomatis in reproductive age group women by real time PCR assay in a semi-urban area of South India

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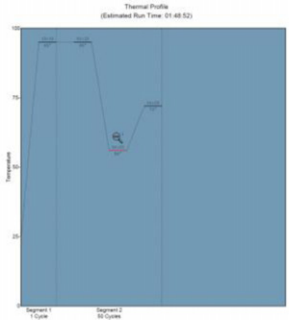
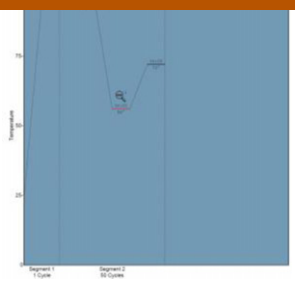
Background: Genital *Chlamydia trachomatis* presents as asymptomatic infection and hence if left untreated, leads to Pelvic Inflammatory Disease and Infertility. Centre for Disease Control and Prevention(CDC) has recommended that screening of women for *Chlamydia trachomatis* under the age of 24 years at least once in a year, as mandatory. In a developing country like India, due to inadequate data and resources, it is not currently practiced as a mandatory screening procedure. Hence this study is aimed at estimating a reliable laboratory based data on *Chlamydia trachomatis* infection in reproductive age group women (18 to 45 years) attending a tertiary care hospital in a semi urban area of South India.

Methods & Materials: A cross sectional study was conducted on 110 women attending gynecology OPD who has fulfilled the inclusion criteria over a period of one year from April 2014 to March 2015. After obtaining informed consent, under aseptic precautions, samples were collected from endocervix with the help of cytobrush and inoculated in a sterile aliquot tube containing 2ml of 99% ethanol for the detection of Chlamydial nucleic acid by Real time PCR.

Results: 8.18% (9/110) showed positivity for Chlamydia trachomatis by Real time amplification plot analysis. All the infected population belonged to reproductive age group less than 30 years.



Thermal profile of run of Real time PCR for Chlamydia trachomatis



Amplification plot of Real time PCR assay for Chlamydia trachomatis

Conclusion: Previous studies have proved that available diagnostic techniques like ELISA are not reliable indicators and nowdays molecular methods are the choice for an appropriate diagnosis. The proportion of *Chlamydia trachomatis* obtained in our study emphasize that health programmes should be implemented to screen the clinically silent *Chlamydia trachomatis* infection in women of reproductive age group less than 30 years to safeguard the reproductive health of women.

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Differential expression of superoxide dismutases in early aborters infected with Chlamydia trachomatis

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Background: *Chlamydia trachomatis* (Ct) can infect placenta/ decidua causing Spontaneous Abortion (SA). However, associated pathogenic mechanisms are unknown. Placental oxidative stress has been implicated in pathophysiology of abortion. It was hypothesized that oxidative stress-induced placental dysfunction may be cause of multifactorial/ polygenic etiologies of abortion. Study aimed to evaluate role of Superoxide Dismutases (SODs) in pathophysiology of early abortion by studying expression of Manganese-Superoxide Dismutase (Mn-SOD) and Copper, Zinc-Superoxide Dismutase (Cu, Zn-SOD) in Ct-infected women.

Methods & Materials: With hospital ethics permission, Endometrial Curettage Tissue (ECT) was collected from 145 aborters (Sporadic Spontaneous Aborters, SSA and Recurrent Spontaneous Aborters, RSA) presenting with vaginal bleeding/ undergoing incomplete SA in first trimester of pregnancy and 120 aborters undergoing MTP at Department of Obstetrics and Gynaecology, Safdarjung hospital, New Delhi (India). Group I comprised of Ct-infected SSA/ RSA while uninfected induced aborters were included in Group II. PCR assay was performed for diagnosis of Ct cryptic plasmid (200 bp). Qualitative/ quantitative expression of